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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,596	11/07/2001	Gary J. Osterfeld	H0001612-3	6363

7590                    03/12/2004

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EXAMINER
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MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/037,596	OSTERFELD ET AL.
	<b>Examiner</b> Barbara J. Musser	<b>Art Unit</b> 1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 February 2004.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) 1-7 and 11-14 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 8-10 and 15-26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/7/01, 4/29/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of the restriction in Paper dated 10/0103 is acknowledged. The traversal is on the ground(s) that all the groups now claim heaters which pre-cures an adhesive using induction heating. This is not found persuasive because the apparatus of both groups I and III can be used to form a product other than a filter such as a sealed tube or a container such as that for Pringles™. Note that the apparatus of Groups I and III therefore would have been recognized as useful in a materially different process.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-10 and 15-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 8 and 15, it is unclear what is meant by the induction heating pre-curing the adhesive as such heating cures the adhesive. Pre-curing suggests the curing occurs prior to something which is not the case here. It is suggested rather than "pre-curing", applicant recite that the adhesive is --partially cured--.

Regarding claims 25 and 26, it is unclear how the heating causes the electromagnetic field. From the definition of induction, it appears that the heating is caused by the electromagnetic field.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-10, 15, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilski et al.(U.S. Patent 5,698,059) in view of Bras et al.(FR 2416041A)

Bilski et al. discloses a method of forming a filter wherein the filter is supported in the center, end caps are applied, heat is briefly applied to gel the adhesive prior to moving it using a hot plate, and the filter is transferred to a curing station.(Col. 3, ll. 27-38; Figure 4) The reference does not disclose using metal end caps or inductively heating the ends to cure the adhesive. Bras et al. discloses a filter with metal end caps(11,12) wherein induction heating heats the end caps to cure the adhesive.(Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use metal end caps and inductively heat the ends to cure the adhesive since the combination of metal end caps and induction heating can

preform the curing with much more thermal efficiency than conventional heaters.(Abstract)

Bilski et al. does not disclose joining both end caps at the same time to the filter. Bras et al. discloses it is known to move the filter while in the horizontal position. In this position, both end caps can be placed on at the same time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the end caps while the filter was in the horizontal position so that both end caps could be applied at the same time. Bilski et al. discloses final curing in the vertical position so that the filters would not roll around during final curing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to retain curing in the vertical position so that the filters would not roll around during the final curing.

Regarding claims 9 and 21, Bilski et al. has two curing locations, a final cure oven and a partial cure beforehand.(Figure 4; Col. 3, ll. 28-38) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use induction heating at both these locations since induction heating heats only metal and would not damage the filter.

Regarding claim 22, the final cure station is an oven.(Col. 5, ll. 5-6)

Regarding claims 25 and 26, induction is defined as causing an electric current to flow through a material via electromagnetic induction. Therefore an electrical current would need to be generated to cause induction.

6. Claims 15-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaida et al.(U.S. Patent 4,795,524) in view of Bras et al.

Sakaida et al. discloses a method of making a filter wherein after the metal end caps are placed on the filter, the filter is moved to a heating station where heating elements heat the adhesive from both the top and the bottom.(Col. 5, ll. 46-48; Figure 3) The reference does not disclose using induction heating to heat the metal end caps. It would have been obvious to one of ordinary skill in the art at the time the invention was made to inductively heat the metal end caps of Sakaida et al. to cure the adhesive since induction heating can perform the curing with much more thermal efficiency than conventional heaters,<sup>as taught by Bras et al</sup>(Abstract).

Regarding claim 16, Sakaida et al. discloses two heaters.(Figure 3)

Regarding claim 17, one in the art would appreciate that it would not be desirable to bond the end caps to the heaters and would prevent such as that would damage the equipment and hurt productivity.

Regarding claim 18, while Sakaida et al discloses moving only one of the heaters, one in the art would appreciate that an obvious alternative to moving one heater and the filter would be to move both heaters when it was desired to not move the filter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to move both heaters rather than one heater and the filter since these are obvious alternatives and since this <sup>does</sup> <sub>to</sub> not move the filter as much making damage less likely.

Regarding claims 19 and 20, induction is defined as causing an electric current to flow through a material via electromagnetic induction. Therefore a device which would cause an electromagnetic field would be needed to cause induction.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571) 272-1222**. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJM

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